

Amendments to the Claims

1. (Currently amended) A method of forming an oxide region over a semiconductor substrate, comprising:

providing a semiconductor substrate having an exposed silicon surface, the exposed surface comprising a non-oxide material;

introducing nitrogen into the non-oxide material to form forming a nitrogen-comprising surface region layer across at least some of the exposed silicon surface of the semiconductor substrate, the surface region extending greater than zero angstroms and no greater than 10 angstroms beneath the exposed silicon surface; and

after forming the nitrogen-comprising layer, growing an oxide region from the at least some of the semiconductor substrate, the oxide region having a thickness of at least about 70 angstroms, the nitrogen of the nitrogen-comprising layer being dispersed within the oxide region.

2. (Previously presented) The method of claim 1 wherein the oxide region comprises silicon dioxide.

3. (Previously presented) The method of claim 1 wherein the semiconductor substrate comprises monocrystalline silicon and the oxide region is grown from the monocrystalline silicon and comprises silicon dioxide.

4. (Original) The method of claim 1 wherein the nitrogen-comprising layer is formed from plasma activated nitrogen species.

5. (Previously presented) The method of claim 1 wherein the nitrogen-comprising layer is formed by remote plasma nitridation utilizing nitrogen species generated in a plasma that is at least about 12 inches from the semiconductor substrate.

6. (Previously presented) The method of claim 1 wherein the nitrogen-comprising layer is formed by remote plasma nitridation utilizing nitrogen species generated in a plasma that is at least about 12 inches from the semiconductor substrate; and wherein the semiconductor substrate not being biased relative to the plasma during formation of the nitrogen-comprising layer.

7. (Previously presented) The method of claim 6 wherein the semiconductor substrate is maintained at a temperature of from about 550 °C to about 1000 °C during formation of the nitrogen-comprising layer.

8. (Previously presented) The method of claim 6 wherein the semiconductor substrate is exposed to the nitrogen species for a time of from greater than 0 minutes to about 5 minutes.

9. (Previously presented) The method of claim 1 wherein the nitrogen-comprising layer is formed by plasma nitridation utilizing nitrogen species generated in a plasma that is at least about 4 inches from the semiconductor substrate.

10. (Previously presented) The method of claim 9 wherein the semiconductor substrate is maintained at a temperature of from about 0 °C to about 400 °C during formation of the nitrogen-comprising layer.

11. (Previously presented) The method of claim 9 wherein the semiconductor substrate is exposed to the nitrogen species for a time of from greater than 0 seconds to about 30 seconds.

12. (Currently amended) A method of forming a pair of oxide regions over a semiconductor substrate, comprising:

forming a first oxide region which covers only a first portion of the semiconductor substrate, a second portion of the semiconductor substrate having an exposed semiconductive material surface;

introducing nitrogen to form ~~forming~~ a nitrogen-comprising oxide layer across at least some of the first oxide region and a nitrogen-comprising non-oxide layer across at least some of the second portion of the semiconductor substrate ~~that is not covered by the first oxide region~~, the nitrogen-comprising layer extending greater than zero and less than or equal to about 10 angstroms beneath a surface of the first oxide region and the nitrogen-comprising non-oxide layer extending greater than zero and less than or equal to about 10 angstroms beneath the exposed a surface of the second portion of the semiconductor substrate ~~not covered by the first oxide region~~; and

after introducing nitrogen ~~forming the nitrogen-comprising layer~~, growing a second oxide region from the at least some of the second portion of the semiconductor substrate

~~that is not covered by the first oxide region~~, the second oxide region having a thickness of at least about 70 angstroms.

13. (Currently amended) The method of claim 12 wherein the first oxide region is formed by:

forming an oxide layer over the first portion ~~covered region~~ and at least some of the ~~uncovered region~~ second portion of the semiconductor substrate; and

removing the oxide layer from over the second portion ~~uncovered region~~ of the semiconductor substrate.

14. (Previously presented) The method of claim 13 wherein the oxide layer is formed by exposing the semiconductor substrate to oxidizing conditions.

15. (Currently amended) The method of claim 12 wherein the nitrogen-comprising oxide layer and the nitrogen-comprising non-oxide layer are is formed by remote plasma nitridation utilizing nitrogen species generated in a plasma that is at least about 12 inches from the semiconductor substrate.

16. (Currently amended) The method of claim 12 wherein the nitrogen-comprising oxide layer and the nitrogen-comprising non-oxide layer is formed by plasma nitridation utilizing nitrogen species generated in a plasma that is at least about 4 inches from the semiconductor substrate.

Claims 17-28 (Cancelled).

29. (New) A method of forming a pair of oxide regions over a semiconductor substrate, comprising:

forming a first oxide layer over a first portion of the semiconductor substrate, a second portion of the semiconductor substrate having an exposed non-oxide material surface;

introducing nitrogen into at least some of the first oxide layer and into at least some of the exposed non-oxide material across at least some of the second portion of the semiconductor substrate; and

after introducing nitrogen, exposing the substrate to oxidizing conditions to grow a second oxide layer from the at least some of the second portion of the semiconductor substrate, the second oxide layer having a thickness exceeding a thickness of the first oxide layer after the exposing, the nitrogen introduced into the second portion being dispersed within the second oxide layer.

30. (New) The method of claim 29 wherein after the exposing the substrate to oxidizing conditions, the first oxide layer has a thickness of less than or equal to about 50 angstroms and wherein the second oxide layer has a thickness of at least about 70 angstroms.